

# POSITION AVAILABLE

Astrophysics Group  
Department of Physics  
Indian Institute of Science  
Bangalore 560012  
INDIA

Attention: Banibrata Mukhopadhyay, Professor

Applications are invited for a Postdoctoral Fellow Position at Indian Institute of Science (IISc), Bangalore (<http://www.physics.iisc.ac.in>) to work on a SERB supported project in the interface of gravitational physics and quantum physics. The successful candidate is expected to work with Professor Banibrata Mukhopadhyay of IISc jointly in collaboration with Professor Subhashish Banerjee of IIT Jodhpur. Hence, the candidate is expected to visit IIT Jodhpur, whenever needed.

The project particularly aims at exploring, e.g., quantum speed of electrons and protons influenced by gravity and magnetic field, which further control accretion and radiation processes; effects of gravity and matter in neutrino oscillations, corresponding quantum correlation and speed-limit; underlying matter stability; the issue of apparent pseudo-Hermiticity of Dirac Hamiltonian in the time-dependent spacetime and underlying geometric phases, similar to the Pancharatnam-Berry phase and Aharonov-Bohm effect in magnetic field.

The project is expected to be involved with both analytical and numerical works. Preference might be given to individuals with knowledge/experience in at least one of the following fields: general relativity, foundation of quantum mechanics, astroparticle physics, radiative transport, compact object physics, nuclear astrophysics.

The applicants must have a Ph.D. degree or submitted a Ph.D. thesis in Physics or Astrophysics with suitable research experience. The position is available for upto 3 years, contingent upon performance reviewed at the end of each year.

The candidate will also have the opportunity to interact with the faculty members of the Department of Physics of IISc.

Applicants should submit a curriculum vitae, list of publications, and a brief description of research interests to the following address:

Banibrata Mukhopadhyay, Professor  
Department of Physics  
Indian Institute of Science  
Bangalore-560012  
Email: [bm@iisc.ac.in](mailto:bm@iisc.ac.in)

In addition, applicants should send three names who can provide with supporting letters for shortlisted candidates on request. Applications can be sent electronically.